

NONEL[®] DynoLine[®]

Manufactured by	Dyno Nobel Sweden AB Gyttorp S-713 82 NORA SWEDEN Phone +46 587 850 00	Issued on 2000-02-24 Version 4	
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1 IDENTIFICATION

Trade name: Nonel[®] DynoLine[®]

Chemical/technical classification: Non-electric signal conductor (shock tube) of low-energy type

2 COMPOSITION

<u>Substances which may render the product hazardous to health</u>	<u>CAS No</u>	<u>Content %</u>	<u>TLW</u>	<u>Remarks</u>
<i>Nonel tube:</i>				
Octogen (HMX)	2914-29-6	16 mg/m		
Aluminium powder	7429-90-5	2 mg/m		
<u>Other substances</u>				
<i>Nonel tube:</i>				
Inner layer: Ionomer	25608-26-6	~2 g/m		
Middle & outer layer: Polyethylene	25087-34-7	~2 + 2 g/m		
<i>Connecting sleeve:</i>				
Polyvinyl chloride	9002-86-2			

3 HEALTH HAZARDS

Inhalation:

Eyes: Risk of splinters from uncontrolled detonations

Skin: Risk of splinters from uncontrolled detonations

Ingestion:

MATERIAL SAFETY DATA SHEET

4 FIRST AID

Inhalation:

Eyes:

Skin:

Ingestion:

Information to physician: When the shock wave tube is initiated a small bang is heard

5 FIRE PROTECTION

Specific fire hazard or explosion risk: The small amount of explosives within the shock wave tube is not initiated because of fire

Safety measures:

Extinguishing agent:

**Extinguishing agent
NOT to be used:**

6 MEASURES IN THE EVENT OF SPILLAGE

Destroying Nonel tubes:

With the aid of a DynoStart blasting machine, initiate and burn out the reactive substance in the tube and then send it to:

1. A recycling site
2. A garbage dump
3. An incineration site

7 STORAGE AND HANDLING

Storage: The tube ends should be sealed during storage to avoid moisture leakage

Handling: The products should be handled as specified in the manufacturer's instructions

8 PRECAUTIONS DURING STORAGE AND HANDLING

Preventive measures: **No smoking, fire, sparks or welding. Static electricity must be avoided.**

Personal protection gear: When initiate the tube it is recommended that hearing protection is used.

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9 PHYSICAL/CHEMICAL PROPERTIES

Description of product: Non-electric signal conductor of low-energy type (plastic tubing covered inside with a reactive substance).
Connectors of softened polyvinyl chloride.

Boiling point (°C): **Solidifying/melting point (°C)** Plastic of the tube
120°C

Density (kg/m³): **Relative vapour density (air = 1)**

Flash point (°C): **Ignition temp (°C)**

Explosion range in air: (vol%) **Solubility in organic solvents**

Vapour pressure (°C): **pH of concentrate**
(mm Hg) **pH of ready-to-use solution (%)**
(kPa)

Relative evaporation rate:
(Ether = 1)
(BuAc = 100)

10 STABILITY AND REACTIVITY

Stability: It is recommended that DynoLine is stored under dry conditions, with the tube ends sealed.
The HMX within the shock wave tube degrades at temperatures above 260°C.

Avoid mixing with: Must not be mixed with components of other brands

Dangerous decomposition products:

Dangerous combustion products:

11 TOXICOLOGICAL DATA

12 ECO-TOXICOLOGICAL DATA

13 DESTRUCTION

Contact the supplier for instructions

MATERIAL SAFETY DATA SHEET

14 TRANSPORT REGULATIONS

UN No :	Not classified as dangerous goods	Packaging group	
ADR/RID:		Substance No	
IMDG Class:		Page	EmS No
MFAG No:			
DGR:			
Description of goods:			
Miscellaneous:			

15 CLASSIFICATION AND MARKING

Chemical product hazardous to health:	No		
Chemical product hazardous to the environment:	No		
Flammable product:	No	Class	
Explosive product:	No		
Marking category(ies):			
Danger symbol:		Main text	
R(isk) texts:			
S(afety) texts:			

16 OTHER INFORMATION

The shock wave tube is not classified as dangerous goods